

REMARKS/ARGUMENTS

The claims are 1-4, 6 and 8-12. Claims 5 and 7, which the Examiner indicated contained allowable subject matter, have been rewritten in independent form as new claims 11 and 12, respectively. Accordingly, claims 5 and 7 have been canceled. In addition, claim 1 has been amended to improve its form. Reconsideration is expressly requested.

The Examiner indicated that claims 5 and 7 contained allowable subject matter; however, the Examiner rejected the remaining claims 1-4, 6, and 8-10 on the basis of the prior art. Specifically, claims 1, 6, and 8-10 were rejected under 35 U.S.C. 102(b) as being anticipated by *Scott U.S. Patent No. 3,495,086*. The remaining claims 2-4 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Scott* alone (claim 3) or further in view of *Hochstein U.S. Patent No. 6,573,490* (claim 2) or *Stam et al. U.S. Patent No. 6,593,698* (claim 4). Essentially the Examiner's position was that *Scott* discloses the infrared receiving device recited in the rejected claims, except for features which were considered either within the skill in the art or taught by

Hochstein or Stam et al.

In response, Applicants have rewritten claims 5 and 7 in independent form as new claims 11 and 12, respectively. Accordingly, it is respectfully submitted that new claims 11 and 12 are now in condition for allowance.

With respect to the remaining claims 1-4, 6, and 8-10, Applicants respectfully traverse the Examiner's rejections for the following reasons.

As set forth in claim 1 as amended, Applicants' invention provides an infrared receiving device including IR detector elements for receiving IR signals from a communication zone, as well as a processing circuit for deriving electric signals corresponding to the IR signals received. The IR detector elements are provided in at least one matrix-type arrangement which corresponds to a matrix-type segmentation of the communication zone. The processing circuit includes a maximum

detector circuit connected to the IR detector elements that selects one respective maximum output signal from among the output signals of the IR detector elements for deriving the electric signal. A threshold-value-forming unit is connected to the IR detector elements whose output is connected to the input of a comparator at whose other input the respective maximum IR detector element output signal is applied.

Each IR detector element for selecting the maximum output signal has at least one consecutive diode, the diodes being interconnected by their sides facing away from the IR detector elements. In this way, Applicants' invention provides an infrared receiving device in which the receiving sensitivity can be substantially increased by simple measures and without restricting the communication zone.

None of the cited references discloses or suggests an infrared receiving device having the structure recited in amended claim 1 in which each IR detector element for selecting the maximum output signal has at least one consecutive diode, with

the diodes being interconnected by their sides facing away from the IR detector elements.

The primary reference to *Scott* discloses a matrix arrangement of IR detector elements 11 in which the detector elements of each respective column are connected to one respective diode 41-47 to supply the respective highest signal of the detector elements 11 of the column for processing. Resistors R1, R2 define a threshold to obtain an output signal for signal processing in the case that the detector signal exceeds that threshold value. See column 2, lines 20-30 of *Scott*. There is no disclosure or suggestion in *Scott* of each IR detector element being connected to at least one consecutive or following diode as recited in Applicants' claim 1 as amended. In the circuit of *Scott*, all IR sensors 11 of each column are connected to only one diode. Compare *Scott* with Applicants' FIG. 4, for example, wherein each detector element is connected to two respective diodes.

The defects and deficiencies of the primary reference to

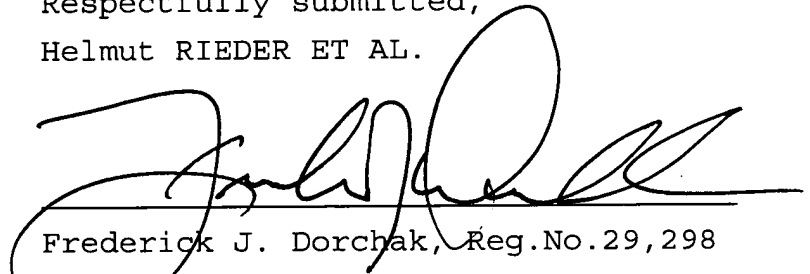
Scott are nowhere remedied by the secondary references to *Hochstein* or *Stam et al.* *Hochstein* simply discloses an interleaved mosaic imaging rain sensor showing a column or row array of first and second image sensor elements (FIG. 3) or a checkerboard array of first and second image sensor elements (FIG. 4). There is no disclosure or suggestion of an infrared receiving device wherein each IR detector element for selecting the maximum output signal has at least one consecutive diode, with the diodes being interconnected by their sides facing away from the IR detector elements.

Stam et al. is even further afield. *Stam et al.* simply discloses a continuously variable headlamp control in which a street lamp 222 is imaged by lens 242 onto image array sensor 52 as street lamp image 244. There is no disclosure or suggestion of an infrared receiving device wherein each IR detector element for selecting the maximum output signal has at least one consecutive diode, with the diodes being interconnected by their sides facing away from the IR detector elements.

Accordingly, it is respectfully submitted that claim 1, as amended, and claims 2-4, 6, and 8-10, which depend thereon, are patentable over the cited references, together with new claims 11 and 12, which are believed to be in condition for allowance.

In summary, claim 1 has been amended, claims 5 and 7 have been canceled, and new claims 11 and 12 have been added. In view of the foregoing it is respectfully requested that the claims be allowed and that this application be passed to issue.

Respectfully submitted,
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Enclosure: Copy of Petition for one-month Extension of Time

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on July 24, 2008.



Amy Klein